

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

DAKOTA ZEPHYR

NOVEMBER, 1937

VOL. 3 NUMBER 4

Published by: The Soil Conservation Service

Brookings, South Dakota

Ross D. Davies
State Coordinator

Ralph E. Hansen
Extension Soil Conservationist

* * * * *

Dear Cooperator:

FIRST SOIL CONSERVATION DISTRICT IS ORGANIZED

Farmers and ranchers in the Faith neighborhood have completed organization of what Ralph E. Hansen, Extension Conservationist, says is the first Soil Conservation district to be set up under the state soil conservation law enacted at the last session of the legislature. It is called the Tri-County Soil Conservation District.

Embracing an area of approximately 358,379 acres in Ziebach, Meade and Perkins counties, the newly organized district offers ideal conditions, in Mr. Hansen's opinion, for practicing soil and water conservation methods such as those other South Dakota landowners and operators have already been following in cooperation with the Soil Conservation Service.

Five supervisors will administer the work in the district. They are C. E. Jonas, Faith, and Frank Eichelmann, Isabel, appointed by the State Soil Conservation committee according to the state law; and Alvin Anderson, Avance, Frank

Gottschalk, Faith, and Joseph M. Heimer, Dupree, elected by persons within the district.

In commenting upon the results of the referendum held for the establishment of the Tri-County district, Mr. Hansen said that of a total of 841 votes cast, 819 or 90.5 percent were in favor of establishing the district. Voters casting ballots represented 204,225 acres, or approximately 74 percent of the total area in the district. The votes in favor of the district represented 259,105 acres, or 72 percent of the area.

To organize a Soil Conservation district, the state law requires that two-thirds of the land area must be represented by the votes cast and two-thirds of the votes cast must be in favor of the district.

A total of 169,525 acres of land voted represented private land or land owned by resident and non-resident individuals. County land in the district amounted to 41,040 acres; rural credit land, 24,040 acres; school and public lands, 24,340 acres; and various business corporations, 4,080 acres.

854
TRAINING COURSE LIBRARY
Soil Conservation Service
Region No. 9

Price 10¢

A meeting of the supervisors of the district was held at Rapid City, November 2. Representatives of the State Extension Service, the Land Use Section of the Bureau of Agricultural Economics, and the Soil Conservation Service attended the meeting.

The supervisors drew up a program of work, including an analysis of the problem area, and discussed the collection of basic data on erosion and land use for the district. Different state and federal agencies operating in South Dakota were asked to contribute this information.

* * * * *

RALPH E. HANSEN IS NAMED EXTENSION CONSERVATIONIST

Ralph E. Hansen, former county agent in Meade county, has been named Extension Conservationist to fill the vacancy left by the promotion of L. R. Kennedy to range director for the North Central Region, according to an announcement made by A. M. Eberle, Director of Extension.

Mr. Hansen was born in Wall, S. D., and graduated from the Watertown high school. He graduated from Dakota Wesleyan and later attended the University of Iowa to take advanced work.

He had been in county agent work four and a half years before his promotion. He started as county agent at Murdo in Jones county, was transferred to the county agent's job at Dupree in Ziebach county and then to Sturgis in Meade county.

He was instrumental in the organizing of the Faith Soil Conservation district.

* * * * *

NEW SOIL CONSERVATION DISTRICT IS PLANNED

Extension Conservationist Ralph E. Hansen reports that farmers in Brown and Marshall counties are progressing rapidly in the organization of a Soil Conservation district which would include six townships in the northeastern part of Brown county and approximately four adjoining townships in Marshall county. It would be the second district to be organized under the South Dakota Soil Conservation districts law enacted at the last session of the legislature.

Following preliminary organization work which began during July and August, three meetings were held in Claremont, Houghton and Hecla, on October 7, 8 and 9, Mr. Hansen said. At these meetings the nature of the state conservation law was discussed by interested landowners and operators and pictures were shown illustrating results of water and wind erosion in the United States. Landowners and occupiers were notified at these meetings that a petition was being circulated to be presented to the State Committee, requesting that a hearing be held within the boundaries of the erosion territory in Marshall and Brown counties.

The local organization committee had representatives from both Marshall and Brown counties meet at Britton on October 14, at which time definite plans were made to outline the boundaries of the district and to make further preparations for a hearing within the area. Upon receipt of the petition, the State Committee designated October 21 for the proposed hearing to be held in Claremont at 1:30 p.m.

Director of Extension, A. M. Eberle, Chairman of the State Soil Conservation Committee, and Mr. Ross D. Davies, State Coordinator, were present at this hearing which was attended by approximately 150 landowners and producers of that terri-

tory. Testimony given by each speaker was recorded. No evidence was given opposing the organization of such a district, Mr. Hansen said. The attitude was very strongly in favor of such a district.

The State Committee determined that there was need for the organization of a soil conservation district within this area and that a referendum of landowners within the area should be held. On the evenings of October 28, 29 and 30, meetings were held in Claremont, Hecla and Houghton. These meetings were thrown open for discussion to clear up any points not understood with respect to the creation of soil conservation districts under the state soil conservation districts law.

Landowners were given the opportunity to vote on forms prepared by the State Committee. In the meantime, special educational material describing the nature of the districts law and the organization activities within the area was prepared and mailed to all non-resident landowners. A copy of the ballot was enclosed, and they were requested to vote either in favor of or against the organization of the district, as they saw fit. Mr. Hansen said these ballots have already started to come back in the mail, indicating interest on the part of non-resident owners.

* * * * *

Sixty pounds of soil per acre were lost from the part of a wheatfield protected by terraces during a 1.17 inch rain. From the unterraced part of the same field, 2,100 pounds of soil per acre washed away.

* * * * *

According to physical laws, when the speed of water run-off is doubled, its cutting power is multiplied by 4, its power to carry soil by 32, and the size of particles it can carry by 64.

* * * * *

FARMERS MAKE TOUR WINNER-DIXON AREA

Farmers from Brule and Buffalo counties who have expressed an interest in the formation of a Soil Conservation district in their territory, were taken on a tour of the Winner-Dixon Demonstration project Friday, November 5, by Howard K. Schultz, county agent for the two counties.

Ben R. Fenn, manager of the project, accompanied the visitors over the erosion control area. Ross D. Davies, state coordinator for the Soil Conservation Service; Ralph E. Hansen, Extension Conservationist; and Eben W. Hall, agricultural agent for the Milwaukee railroad, also attended.

The tour included visits to ten farms in the forenoon and a like number in the afternoon. Strip cropping, terracing, various contour practices, stock water dams, water spreading devices, pasture furrows, tree plantings, and rough tillage methods were among the many soil and water conservation measures studied by the group.

County Agent Schultz arranged the tour to acquaint farmers in his territory with the methods used by the Soil Conservation Service to help control wind and water erosion and conserve moisture. Mr. Hansen reviewed briefly the recent organization of the Tri-County district in the Faith vicinity and the work farmers are doing toward organizing another district in Brown and Marshall counties.

Mr. Davies explained the new South Dakota Soil Conservation districts law.

* * * * *

Even on gentle slopes sheet erosion removes as much plant food material as crops use. On steep slopes it removes much more.

* * * * *

CONSIDERABLE INTEREST DEMONSTRATION FARMS

Considerable interest is reported by Extension Conservationist, Ralph E. Hansen, as being shown by South Dakota farmers in the Extension Demonstration farms upon which soil conserving practices are demonstrated through the cooperation of the farmer, county agent and Soil Conservation Service.

During the year, demonstration farms were planned in Ziebach, Butte, Tripp, Buffalo, Kingsbury, Jerauld, Meade, Sanborn, Potter and Lawrence counties. A plan of soil conservation operations is prepared for each demonstration farm. The farmer can use this as a guide in applying soil erosion prevention and water conservation practices on his farm.

Planning work for demonstration farms has been started in Gregory, Todd, Mellette, Brule and Charles Mix counties. Technicians of the Soil Conservation Service from the Winner and Huron erosion control projects have been made available to assist county agents in planning and laying out the soil and water conservation practices to be carried out by the farmers.

Numerous requests have been received for the establishment of demonstration farms in Pennington, Custer, Hutchinson, Jackson, Faulk, Edmunds, and Bon Homme counties. Weather permitting, planning work will be started in these counties in the near future, Hansen said.

R. O. Swanson, Charles Mix county agent, in a report on demonstration farms in his county, said:

"The following farmers in Charles Mix county are cooperating with the Soil Conservation Service: W. E. Kirkpatrick, E. F. Piroutek, and Ray Robbennolt, Wagner; James Arshem and Forrest Scott, Geddes; Pete Olson, Academy; and St. Paul

Indian Mission, Marty. These farmers are agreeing to use their farms as demonstration areas which will show pasture, listed and strip contouring. Some terrace contouring will also be carried out.

"These farmers are all very much interested in the demonstration work and feel the work will be very practical and will show marked results."

Sixty-five miles of contour pasture furrows have been plowed by James Arshem on a 100-acre pasture. It was estimated that these furrows, when two-thirds full, will hold 1,100 tons of water. These furrows were plowed by Mr. Arshem in three days after the engineer laid them out on a true contour.

* * * * *

SOIL CONSERVATION TERMS DISCUSSED

As South Dakota farmers become more interested in methods of soil and water conservation practices in cooperation with the Soil Conservation Service, the need arises for explanation of the various terms applying to conservation work, the kind of implements used, and other facts about erosion control technique.

Questions most frequently asked concerning contour pasture furrows are: What implements should be used? What is the highest percentage of grade that should be contour furrowed? How closely should furrows be spaced? How large should the furrows be?

In an effort to answer some of these questions, a project engineer on one of the South Dakota demonstration areas was contacted. Below is a brief summary of the information received:

"Contour furrows can be made with several implements. We have had good results using one-way plows, two-way

"SOIL AND WATER"

plows, blade graders, single-row listers, and three-row listers with the center beam removed. The best implement to use on a particular pasture depends upon condition of the sod, amount of moisture present, and soil type. Our personal preference for most cases is a three-row lister with the center beam removed, using a narrowed lister blade with special wings to deposit the dirt from the furrow far enough away so it will not sluff back into the furrows. In cases where the sod coat is destroyed, it is best to build small pasture terraces with a blade grader. Where the sod is of good quality, special equipment has been developed to build the furrow without destroying any sod.

"The highest percent grade which should be contour pasture furrowed is generally agreed to be from 8 to 10% in this area.

"Since the purpose of contour furrows is to uniformly distribute moisture throughout the subsoil, it is generally recognized that small furrows closely spaced is better than large, deep furrows spaced farther apart. However, the small furrows closely spaced tend to destroy too much sod cover. A happy medium usually is arrived at by making the furrows 4" to 5" deep, 8" to 14" wide, with a horizontal spacing varying from 10 to 20 feet.

"To design contour furrows to hold a heavy rain without overtopping would produce a furrow system with furrows spaced too closely. Overtopping usually causes no harm where a fair sod cover exists between the furrows. Where practically no sod cover exists, pasture terraces should be constructed to hold at least 50% of the maximum rain expected before a sod can be developed, depending upon the soil type. Up to the 8% limit, grade does not materially affect the horizontal distance apart contour furrows are constructed."

* * * * *

"Soil is one of the most precious gifts which nature bestows on man. It is the indispensable basis of all farming operations. Yet we in this country have used our soil resources with a negligence and prodigality perhaps unequalled in the history of mankind. A total area approximately as large as the State of South Dakota -- 50 million acres of once productive American farm land -- has been essentially ruined for further crop production by heavy topsoil losses and gullying. An additional 50 million acres are in a condition almost as serious. Another 100 million acres have been severely impoverished by erosion. And the process of removal is rapidly getting under way on yet another 100 million acres.

"Water is as necessary to the farmer as soil. Without it, no crops will grow; no living thing can survive. In the past, American farmers have wasted their water resources as much as they have spent their soil. Careless farming practices allow rain water or melted snow to run rapidly off the land instead of sinking into the earth to nourish the growth of crops and grasses. Rain is scarce in the northern Great Plains and no farmer can afford to waste the precious amount that does fall. But dust storms and droughts extending over a far-reaching front furnish vivid evidence that insufficient moisture is being stored in nature's great reservoir beneath the ground."

--"Soil and Water Conservation in the Northern Great Plains," Soil Conservation Service Bulletin, U. S. Department of Agriculture.

* * * * *

It takes more than 50 centuries to erode all the soil from a good meadow on an average slope. Nature builds soil faster than that.

PRIZE WINNING CORN ON CONSERVATION FARM

Mrs. Anna Likeness has prize-winning yellow corn to show for her soil and moisture conservation farming methods followed on her place northeast of Wolsey.

Erosion control practices which have been followed on her place include wind strip cropping--planting in rotation in narrow fields at right angles to the prevailing wind direction. These are designed to reduce to a minimum the soil surface exposed to wind or water action. In 1936, Mrs. Likeness had the only seed corn reported produced in her township.

"We never would have gotten anything if it hadn't been for the strips," she told Soil Conservation Service representatives. "The farm was blowing badly. Why, we couldn't have lived here if it hadn't been for the strips and other conservation practices."

"We now have the soil pretty well covered. We have to do everything we can to hold this soil. In 1934, there wasn't a thing on the east quarter. In June of 1935, we got a little vegetation with listing. That was the start. Then we got some corn for feed, though we had to list three times in some places where the soil blew in off a neighboring farm."

"Anyone who sees the place now and saw it before never would have believed the soil blowing over could have been stopped. In 1935, a representative of the Service came out, looking for my brother (Christ Christopherson), who was listing. The man couldn't find him at first--the dust was so bad he couldn't see him out in the field."

"It may be a little harder to farm this way, but that is all right; because we can't farm any other way."

Project Manager Ray L. Graves explained today Mrs. Likeness' farm now is under protective vegetative cover as a result of her cooperation in conservation farming practices. Her farm program, he said, also includes two pastures contour furrowed, to hold water on the grass land to stimulate protective grass growth. Her corn, he said, won prizes at the State Fair.

* * * * *

BULLETIN OFFERS INTERESTING DATA

Farming practices being used by South Dakota and other northern Great Plains farmers to combat soil erosion and moisture waste are discussed in a bulletin just issued by the U. S. Department of Agriculture Soil Conservation Service.

The publication includes several photographs taken on South Dakota farms. Its title is "Soil and Water Conservation in the Northern Great Plains."

Instead of plowing and cultivating up and down hill, the bulletin advises, tillage should be on the contour, or around the level of the slope, to hold rain and snow water on the land where it is received; rough tillage implements such as the lister and duckfoot cultivator should be used to keep exposed soil in maximum wind resisting condition, instead of having finely pulverized field surfaces; grazing should be controlled so as not to overuse pastures and cause destruction of protective, productive grasses; stock water reservoirs, pasture contour furrowing and other devices may be used in proper range management; tree windbreaks may be planted to protect fields from blowing, and trees and shrubs are used for stabilizing gullies and other non-productive areas and making them useful, including providing of wildlife food and cover.

Inquiries concerning this bulletin may be addressed to your County Agent.

The South Dakota Extension Service, in cooperation with the Soil Conservation Service, are continuing to set up demonstration farms throughout South Dakota. These farms are first approved by the local county agent and then worked by a conservationist and an engineer of the Soil Conservation Service. These farms are demonstrating in various places in the counties, the same conservation practices that are being carried on in the project and camp areas of the Soil Conservation Service.

The poem below probably shows the purpose of these demonstration farms better than a long discussion could.

THE DEMONSTRATION WAY

I'd rather see a lesson
Than hear one any day.
I'd rather you would walk with me
Than merely show the way.

The eye's a better teacher
And more willing than the ear.
And counsel is confusing;
But example's always clear.

The best of all the teachers
Are those who live their creeds,
For to see good put in action
Is what everybody needs.

I can soon learn to do it
If you let me see it done.
I can watch your hands in action,
But your tongue too fast may run.

And the counsel you are giving
May be very fine and true,
But I'd rather get my lesson
By observing what you do.

*

UNITED STATES
DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Penalty for private use to avoid
payment of postage, \$300

Ross D. Davies, State Coordinator
Brookings, South Dakota

Official Business